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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,109	02/25/2002	Shinsuke Sakamoto	4329.2270-01	4805

22852 7590 11/18/2002

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WASHINGTON, DC 20006

EXAMINER

LEE, EUGENE

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 11/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/081,109

Applicant(s)

SAKAMOTO ET AL.

Examiner

Eugene Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 4-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. Fig. 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims.

- a. Therefore, the input/output cells (see claim 1, line 4) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
- b. Therefore, a first and second I/O slots arranged on the same wiring layer (see claim 1, line 2) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
- c. Therefore, a first pad arranged on a wiring layer different from said first I/O slot, and a second pad arranged on a wiring layer different from the first I/O slot must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because there is an inconsistency between FIG. 1 and FIG.

2. FIG. 1 shows wiring 17 angling from first pad 12b to I/O slot 11b. However, FIG. 2 shows

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wiring 17 angling from the first pad 12b but remaining in I/O slot 11a. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Specification*

4. The amendment filed 4/24/02 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: a first pad arranged on a wiring layer **different** from said first I/O slot, a second pad arranged on a wiring layer **different** from the first I/O slot.

Applicant is required to cancel the new matter in the reply to this Office Action.

### *Claim Rejections - 35 USC § 112*

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1, and 4 thru 14 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not describe a first pad arranged on a wiring layer **different** from said first I/O slot, a second pad arranged on a wiring layer **different** from the first I/O slot.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, and 4 thru 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Janai et al. '967. The admitted prior art discloses (see, for example, FIG. 4) a semiconductor integrated circuit device comprising a first I/O slot 11a, second I/O slot 11b, first pad 12a, second pad 12b, first wiring 14, and second wiring 17. The admitted prior art does not disclose a third wiring and a fourth wiring. However, Janai shows (see, for example, FIG. 1A) an integrated circuit device comprising horizontal metal strips M1 and vertical metal strips (third and fourth wiring) M2. The metal strips are formed on different levels by way of vias. This arrangement accommodates a large number of interconnecting lines and allows specific routing interconnections to be made. See, for example, columns 1 and 2. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to include the vertical metal strips of Janai's invention in order to customize a semiconductor device (without changing the basic metal wiring pattern) without increasing its general complexity.

***Response to Arguments***

9. Applicant's arguments with respect to claims 1, and 4-14 have been considered but are moot in view of the new ground(s) of rejection.

Regarding paragraph 2a above, none the figures show the I/O slots 11a-11b having input/output **cells**.

Regarding paragraph 2b above, it is unclear what "same wiring layer" the applicant is referring to when the applicant states the "first and second I/O slots arranged on the **same wiring layer**." The applicant additionally refers to first and second wirings, however, it is unclear whether these first and second wirings are also the "same wiring layer". However, how the claims are stated ("a first pad arranged on a wiring layer different from said first I/O slot" wherein the first pad is connected to a first wiring and the first I/O slot is on a same wiring layer), the first and second wirings and the "same wiring layer" must be separate layers.

It is unclear what element in the figures refers to the "same wiring layer" of the first I/O slot and second I/O slot.

Regarding paragraph 2c and 6 above, the first pad 12b is arranged in the first I/O slot 11a and is not arranged on a wiring layer different from said first I/O slot. The same can be said for the second pad 12b, which is arranged in the first I/O slot and is not arranged on a wiring layer different from said first I/O slot.

### **INFORMATION ON HOW TO CONTACT THE USPTO**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Lee whose telephone number is 703-305-5695. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on 703-308-1690. The fax phone numbers for the

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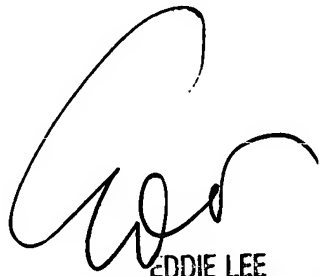
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organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Eugene Lee  
November 17, 2002



EDDIE LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800